

**ICF international / Laboratory Data Consultants**

Environmental Services Assistance Team, Region 9
 1337 South 46th Street, Building 201, Richmond, CA 94804-4698
 Phone: (510) 412-2300; Fax: (510) 412-2304.

MEMORANDUM

TO: Chris Lichens, Remedial Project Manager
 Site Cleanup Section 4, SFD-7-4

THROUGH: Rose Fong, ESAT Task Order Manager (TOM)
 Quality Assurance (QA) Program, MTS-3

FROM: Doug Lindelof, Data Review Task Manager
 Region 9 Environmental Services Assistance Team (ESAT)

ESAT Contract No.: EP-W-06-041
 Technical Direction Form No.: 00105132

DATE: April 7, 2008

SUBJECT: Review of Analytical Data, Tier 3

Attached are comments resulting from ESAT Region 9 review of the following analytical data:

| | |
|-------------------|--|
| Site: | Omega Chem OU2 |
| Site Account No.: | 09 BC QB02 |
| CERCLIS ID NO.: | CAD042245001 |
| Case No.: | 37203 |
| SDG No.: | Y3WK7 |
| Laboratory: | Mitkem Laboratories (MITKEM) |
| Analysis: | 1,4-Dioxane (Semivolatile) |
| Samples: | 18 Ground Water Samples (see Case Summary) |
| Collection Date: | February 28 and 29, 2008 and March 3, 2008 |
| Reviewer: | Santiago Lee, ESAT/Laboratory Data Consultants (LDC) |

This report has been reviewed by the EPA TOM for the ESAT contract, whose signature appears above.

If there are any questions, please contact Rose Fong (QA Program/EPA) at (415) 972-3812.

Attachment

cc: Jennie Han-Liu, CLP PO USEPA Region 1
 Steve Remaley, CLP PO USEPA Region 9

CLP PO: ☐ Attention ☐ Action

SAMPLING ISSUES: ☐ Yes ☒ No

Data Validation Report - Tier 3

Case No.: 37203
SDG No.: Y3WK7
Site: Omega Chem OU2
Laboratory: Mitkem Laboratories
Reviewer: Santiago Lee, ESAT/LDC
Date: April 7, 2007

I. CASE SUMMARY

Sample Information

Samples: Y3WK7 through Y3WL6 and Y3WL8 through Y3WM5
Concentration and Matrix: Low/Medium Concentration Water
Analysis: 1,4-Dioxane (Semivolatile)
SOW: SOM01.2 and Modified Analysis 1363.6
Collection Date: February 28 and 29, 2008 and March 3, 2008
Sample Receipt Date: February 29, 2008 and March 3 and 4, 2008
Extraction Date: March 2, 3, and 5, 2008
Analysis Date: March 3, 4, and 7, 2008

Field QC

Field Blanks (FB): Not Provided
Equipment Blanks (EB): Not Provided
Background Samples (BG): Not Provided
Field Duplicates (D1): Y3WL2 and Y3WL3
Field Duplicates (D2): Y3WM4 and Y3WM5

Laboratory QC

Method Blanks & Associated Samples:
SBLK2N: Y3WK7
SBLK2O: Y3WK8 through Y3WL6
SBLK2P: Y3WL8 through Y3WM5

Tables

1A: Analytical Results with Qualifications
1B: Data Qualifier Definitions for Organic Data Review

CLP PO Action

None.

CLP PO Attention

None.

Sampling Issues

None.

Additional Comments

Matrix spike/matrix spike duplicate (MS/MSD) analysis was not performed by the laboratory. Consequently, matrix-specific accuracy and precision could not be evaluated.

This report was prepared in accordance with the following documents:

- ESAT Region 9 Standard Operating Procedure 901, *Guidelines for Data Review of Contract Laboratory Program Analytical Services Volatile and Semivolatile Data Packages*;
- USEPA Contract Laboratory Program Statement of Work for Organics Analysis, *Multi-Media, Multi-Concentration*, SOM01.1, May 2005;
- *Modifications Updating SOM01.1 to SOM01.2*, Amended April 11, 2007; and
- USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review, July 2007.

II. VALIDATION SUMMARY

The data were evaluated based on the following parameters:

| | <u>Parameter</u> | <u>Acceptable</u> | <u>Comment</u> |
|-----|--------------------------------------|-------------------|----------------|
| 1. | Holding Time/Preservation | Yes | |
| 2. | GC/MS Tune/GC Performance | Yes | |
| 3. | Initial Calibration | Yes | |
| 4. | Continuing Calibration Verification | Yes | |
| 5. | Laboratory Blanks | Yes | |
| 6. | Field Blanks | N/A | |
| 7. | Deuterated Monitoring Compounds | Yes | |
| 8. | Matrix Spike/Matrix Spike Duplicate | N/A | |
| 9. | Laboratory Control Samples/Duplicate | N/A | |
| 10. | Internal Standards | Yes | |
| 11. | Compound Identification | Yes | |
| 12. | Compound Quantitation | Yes | A |
| 13. | System Performance | Yes | |
| 14. | Field Duplicate Sample Analysis | Yes | |

N/A = Not Applicable

III. VALIDITY AND COMMENTS

A. The following results, denoted with an "L" qualifier, are estimated and flagged "J" in Table 1A.

- All detected results below the contract required quantitation limits

Results below the contract required quantitation limits (CRQLs) are considered to be qualitatively acceptable, but quantitatively unreliable, due to the uncertainty in analytical precision near the limit of detection.

ANALYTICAL RESULTS

Page 1 of 1

Case No. : 37203 SDG No. : Y3WK7

Table 1A

Site : OMEGA CHEM OU2

Lab : MITKEM LABORATORIES

Reviewer : Santiago Lee, ESAT/LDC

Date : 04/07/08

QUALIFIED DATA
Concentration in ug/L**Analysis Type :** Low Level Water Samples
for Semivolatiles

| | | | | | | |
|----------------------|---------------|------------|------------|---------------|------------|------------|
| Station Location : | 41 | 42 | 43 | 44 | 45 | 46 |
| Sample ID : | Y3WK7 | Y3WK8 | Y3WK9 | Y3WL0 | Y3WL1 | Y3WL2 D1 |
| Collection Date : | 2/28/2008 | 2/29/2008 | 2/29/2008 | 2/29/2008 | 2/29/2008 | 2/29/2008 |
| Dilution Factor : | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Semivolatiles | Result | Val | Com | Result | Val | Com |
| 1,4-Dioxane | 66 | | | 18 | | |

| | | | | | | |
|----------------------|---------------|------------|------------|---------------|------------|------------|
| Station Location : | 47 | 48 | 49 | 50 | 52 | 53 |
| Sample ID : | Y3WL3 D1 | Y3WL4 | Y3WL5 | Y3WL6 | Y3WL8 | Y3WL9 |
| Collection Date : | 2/29/2008 | 2/29/2008 | 2/29/2008 | 2/29/2008 | 3/3/2008 | 3/3/2008 |
| Dilution Factor : | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Semivolatiles | Result | Val | Com | Result | Val | Com |
| 1,4-Dioxane | 3.2 | | | 2.0U | | |

| | | | | | | |
|----------------------|---------------|------------|------------|---------------|------------|------------|
| Station Location : | 54 | 55 | 56 | 57 | 58 | 59 |
| Sample ID : | Y3WM0 | Y3WM1 | Y3WM2 | Y3WM3 | Y3WM4 D2 | Y3WM5 D2 |
| Collection Date : | 3/3/2008 | 3/3/2008 | 3/3/2008 | 3/3/2008 | 3/3/2008 | 3/3/2008 |
| Dilution Factor : | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Semivolatiles | Result | Val | Com | Result | Val | Com |
| 1,4-Dioxane | 0.59L | J | A | 3.4 | | |

| | | | | | | |
|----------------------|---------------|--------------|--------------|---------------|------------|------------|
| Station Location : | Method Blank | Method Blank | Method Blank | CRQL | | |
| Sample ID : | SBLK2N | SBLK2O | SBLK2P | | | |
| Collection Date : | | | | | | |
| Dilution Factor : | 1.0 | 1.0 | 1.0 | | | |
| Semivolatiles | Result | Val | Com | Result | Val | Com |
| 1,4-Dioxane | 2.0U | | | 2.0U | | |

Val - Validity. Refer to Data Qualifiers in Table 1B.

Com - Comments. Refer to the Corresponding Section in the Narrative for each letter.

CRQL - Contract Required Quantitation Limit

N/A - Not Applicable

NA - Not Analyzed

D1, D2, etc. - Field Duplicate Pairs

FB - Field Blank, EB - Equipment Blank,

TB - Trip Blank, BG - Background Sample

TABLE 1B

DATA QUALIFIER DEFINITIONS FOR ORGANIC DATA REVIEW

The definitions of the following qualifiers are prepared according to the document, "USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review," January 2005.

- U The analyte was analyzed for, but was not detected at a level greater than or equal to the level of the adjusted Contract Required Quantitation Limit (CRQL) for sample and method.
- L Indicates results which fall below the Contract Required Quantitation Limit. Results are estimated and are considered qualitatively acceptable but quantitatively unreliable due to uncertainties in the analytical precision near the limit of detection.
- J The analyte was positively identified and the associated numerical value is the approximate concentration of the analyte in the sample (due either to the quality of the data generated because certain quality control criteria were not met, or the concentration of the analyte was below the CRQL).
- NJ The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate concentration.
- UJ The analyte was not detected at a level greater than or equal to the adjusted CRQL. However, the reported adjusted CRQL is approximate and may be inaccurate or imprecise.
- R The sample results are unusable due to the quality of the data generated because certain criteria were not met. The analyte may or may not be present in the sample.